Glen Ridge • Old Bridge • Waterfront Park • Aberdeen • Asbury Park • Atlantic Highlands • Avon • Belmar • Bradley Beach Brielle • Deal • Highlands • Bayshore Waterfront Park • Keansburg •

> g Branch • Middletown • Monmouth Beach • Barnegat • Ocean Grove • Spring Lake • Union Beach • Bay Head • Beachwood • Berkeley vallette • Mantoloking • Ocean Grove • Point Pleasant Borough • Point ghts • Seaside Park • Longport • Island Beach State Park • Atlantic Twp. • Margate • Forsythe Wildlife Refuge • Ventnor • Avalon • h Wildwood • Ocean City Lower

por 🔹 Old Bridge 🔍 Waterfror

In 2010, a record 8,372 citizens turned out for the 25th Anniversary of the Beach Sweeps collecting 475,321 pieces SWEEPS Bradley Beach
 Briene Over these years, 85,000 volunteers, Keansburg 🔹 mar Dear have collected and catalogued over 4.5 Ocean Grove 
Sandy Celebrating 25 Years Of Citizen Action Lake • million pieces of trash. wood • Berkeley Twp • Brick • Ocean Grove • Point Pleasant This Special Report highlights the past e • Waterfront Park • Aberdeen • Asbury Park • Atlantic ev Beach •Brielle • Deal • Highlands • Bayshore Waterfront on the events of 2010. Long Branch 

 Middletown
 Monmouth Beach
 Monmouth Beach

 Murst Sea Bright
 Spring Lake
 Union Beach
 Bay Head nick • Lakewood • Lavallette • Mantoloking • Ocean Grove • Point omt Pleasant Beach · Seaside Heights · Seaside Park · Longport · Island Beach State Mark • Atlantic City • Brigantine • Egg Harbor Twp. • Margate • Seaside Heights• Cape May • Del Haven • North Wildwood • Ocean City • Sea Isle City • Upper Twp. • Lower Twp. • Middle Twp. • Stone Harbor • Old Bridge • Waterfront Park • Aberdeen • Asbury Park •

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City Each year Clean Ocean Action issues a

report that provides a compelling

snapshot of the marine debris found

along the bays, rivers and ocean in NJ.

Sandy H

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Atlantic Highands • Avon • Belmar • Bradley Beach • Brielle • CleanOceanAction.org

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#### Cindy Zipf Executive Director

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18 Hartshorne Drive, Suite 2 Highlands NJ, 07732 (732) 872-0111 cleanoceanaction.org



#### 2010 was cause for celebration as it marked 25 years of

citizen action in our semi-annual Beach Sweeps! In 1985, Clean Ocean Action (COA) launched the first Beach Sweep in Sandy Hook, NJ. That year, 75 volunteers gathered to rid the beaches of unsightly and harmful debris. Twenty-five years later, the Beach Sweeps program has grown to include 70 locations along New Jersey's coastline, as well as rivers, lakes, and streams. The program brings together thousands of volunteers each year.

The success of the Beach Sweeps program illustrates the public's support for a clean ocean as well as the power of citizen action. The ultimate goals are clean beaches and communities that are aware of the negative impacts of litter on wildlife and the ocean—therefore having communities that no longer require beach sweep efforts.



Printed on a Ricoh Pro C900

#### Building a legacy. COA Sweeps are

about more than citizen action cleaning up the beaches—they document the debris that is found and the data is used to improve programs and drive public policy to reduce litter.

Each Sweep participant records on our data card each piece of debris found. The data collected is then compiled into an annual report that provides a snapshot of New Jersey marine debris problems during a given year. It is important to remember that this report does not reflect daily monitoring, but rather a two-day snapshot of two Sweep events, which together total seven hours.

This report highlights and documents the magnitude and extent of marine debris. It provides evidence to reduce litter, serves to educate the public, and drives efforts to combat marine pollution. The data has been used to establish federal, state, and local programs and laws to reduce litter. It has also been used for school research papers, lesson plans, and student projects.

The data from COA Fall Sweeps is also submitted to Ocean Conservancy in Washington, DC, as part of an international database on marine debris and global campaigns against ocean pollution.



## Dear Beachy Friends,

Happy Beach Sweeps 25!

Congratulations and *waves of thanks* for 25 years of sweeping success! As our ocean's first line of defense, you know that the quality of the ocean depends on citizens to improve and protect this precious watery world.

From the earliest days, nothing dampened your spirit for ocean protection—rain, blasting winds, or freezing temperatures. Together we have collected, tallied, sorted, recycled, and rallied against litter on our beaches. The oceans and waterways are cleaner and healthier today, thanks to you!



You have brought your children to the Sweeps and now they bring their children. It's become a family tradition that we hope to end, as our beaches will one day be litter free.

To celebrate our 25th Year of Beach Sweeps, Clean Ocean Action held New Jersey's first *Symposium Against Beach Litter* on March 13, 2010, and published the Journal of Citizen Action Against Beach Litter. The Symposium, held at Brookdale Community College, brought together scientists, Beach Captains, beach-goers, and elected officials to learn about marine debris. Symposium attendees heard scientists from Sea Education Association (SEA) in Massachusetts discuss premier research findings on the magnitude and extent of plastics in the Atlantic Gyre. COA presented findings on the data collected by Beach Sweeps volunteers over the past 15 years. Elected officials discussed legislative efforts to reduce litter and the importance of citizen action. The Journal of Citizen Action Against Beach Litter includes detailed analysis of the beach sweep data and legislative and regulatory improvements attributable to Beach Sweeps, as well as more information about marine debris, highlights, vintage photos, and testimonials by Beach Captains. The report is available on our website, www.cleanoceanaction.org.

The Symposium also kicked off a remarkable year for Beach Sweeps. You came together in record numbers (8,372), collected more debris than ever (475,321), and you made the beaches cleaner and safer for all to enjoy.

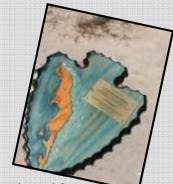
This Beach Sweep 2010 Special Report is a salute to you, our Beach Captains and Beach Sweepers, as well as a call to action for others to join the effort. The report provides an overview of the data collected and issues that still need to be addressed. It also includes a few highlights of the work you have done over the past twenty-five years.

Though overall beaches, waterways, and the ocean are cleaner and healthier today thanks to you, much more needs to be done. Beaches get trashed, vast ocean areas are infused with plastics, and hundreds of thousands of animals die each year due to marine debris. This is an undeniably human-caused tragedy.

We are all responsible for the pollution. Together, we can be the solution.

Ever onward,

Cindy Zipf Executive Director



Hand-carved award from Gateway National Recreation Area thanking Clean Ocean Action for 25 years of Beach Sweeps at Sandy Hook.

Photo by volunteer photographer Bob Lisiesky.





#### Watersheds: Do you know your water address?

If someone asked you for your address, you would easily state your street address. However, do you know your water address? Your water address relates to how water flows downhill from your home, into creeks, then into streams, rivers, bays and ultimately the ocean.

This specific region draining into the river, lake or ocean is called a watershed, which can be large or small, but all ultimately drain to the sea. For example, a watershed can be quite a small neighborhood draining into a local pond, or can be quite large, such as the Mississippi River Watershed, which drains over 50% of the land mass of the United States and empties into the Gulf of Mexico.

Everyone has a water address and lives in a watershed. As the water drains off the land, it collects pollution such as pesticides and fertilizer from lawns and street debris.

#### Pipelines: The Primary Source Of Pollution

Inextricably linked to the watersheds is a massive underground man-made labyrinth of pipelines that collects water runoff, called the storm drain system. As the water drains off roads, parking lots, driveways, and other impervious areas, it also collects pollution including oil, sediments, and litter. The storm drains wash this chemical-and-debris-laden water into nearby streams, rivers, and the ocean. This is the primary pathway for litter in the marine environment.

For the Beach Sweeps, this litter is the primary source of marine debris; it is also the most visible sign of

pollution. Studies suggest that an estimated 60-80% of marine debris starts on land (International Coastal Cleanup). As population and consumerism continues to increase, the solution to ocean pollution is to battle marine debris at its source and throughout the watershed rather than where it accumulates along the shorelines.

#### Trash Lasts...

As our Annual Beach Sweeps reports concluded, plastic is the most abundant type of debris collected during our Beach Sweeps. Plastic is extremely damaging to the marine environment as it does not bio-degrade, it photo-degrades—and takes a very long time to do so. Moreover, photo-degradation causes plastic to break up into smaller and smaller pieces, making them more readily consumed by wildlife.

Do you know how long it takes a plastic bottle to degrade? Check out this marine debris bio-degradation chart from MOTE Marine Labs to learn the answer and find out how long it takes for other common pieces of debris to break down in the environment.



View timeline on www.mote.org

#### What are the impacts?

Plastic marine debris is not only ugly to see, but littered beaches cause economic harm to shore communities. More importantly marine debris is harmful and can be lethal to marine wildlife due to entanglement and ingestion.

#### It Harms Marine Life

**Entanglement** in items such as plastic bottletop rings, balloons with string, and fishing net/line is a serious threat to fish, turtles, mammals, and birds. Mortality can occur quickly through drowning or predation, or it can be a long agonizing death from starvation, infection, or gradual strangulation. Younger, smaller organisms can become entangled in small plastic items that constrict as they grow, damaging tissue, hampering movement and/or restricting air or food passage, eventually leading to disease and death.

**Ingestion** occurs when organisms mistake plastic items for natural food items. Ingested plastic items can block or damage the digestive system leading to infection or starvation. A stomach full of plastic material makes the animal feel full, causing them to stop feeding. Worse yet, studies have shown that organic contaminants like PCBs concentrate on the surface of plastic pieces. When ingested, and since plastic does not break down in the stomach, plastic and toxins are transferred up the food web when the organism is consumed.

#### It Gets Worse

The long life of plastics only makes things worse. When the entangled or impacted organism Photo from Great Pacific Garbage I dies and decomposes, the plastic items become free again to be picked up by another victim. Lost or discarded fishing gear continues to capture and kill organisms until it is removed or finally sinks to the bottom. (See timeline on opposite page.) Beach Sweeps, or any litter collection program, along waterways or beaches can help protect wildlife from harm. Be sure to collect litter off beaches and riverbanks whenever possible.

#### Where does all the garbage go?

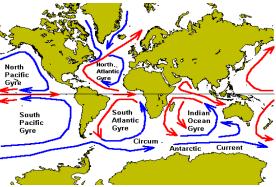
Once in the ocean, marine debris floats in the sea until it sinks to the bottom or winds up on shorelines (where it can be washed into the sea again). Heavier debris such as fishing gear or glass objects, sinks more quickly and is found close to where it was dumped into the sea. Thus, higher concentrations of seafloor debris are near populated coastal areas. Lighter objects, predominantly plastics, remain in surface waters for years where they are affected by winds and currents and can accumulate in gyres. Over time, some floating debris collects organic matter and ultimately sinks to the seafloor.

*What is a Gyre?* The earth's rotation and winds drive surface ocean currents that form giant circulating loops, or gyres.

*Why do Gyres concentrate marine debris?* Garbage and debris are caught up in these currents and physical forces move trash toward the center resulting in the high concentration of garbage within the gyres. The first great ocean garbage patch was discovered in the North Pacific Gyre and a recent expedition throughout the North-Atlantic Gyre revealed a similar "plastic soup" with debris floating throughout the water column.



Laysan albatross chick with more than half a pound of plastic in its stomach. Photo from Great Pacific Garbage Patch



Fact: 90% of the garbage found in the North Pacific Gyre is plastic.





Clean Ocean Action's Beach Sweeps is one of the longest running cleanups in the world. The first event, called the Debris-a-thon was held in 1985 at Sandy Hook, NJ, with over



(Excerpt from the "Journal of Citizen Action Against Beach Litter")

# **Beach Sweeps: A History**

An important objective of the Beach Sweeps program is

the volunteer-collected data. During a Beach Sweep all

volunteers are instructed to collect trash, as well as record

everything they find on COA's data card. This information

75 small and tall citizens. Over the years, the name of the event changed, including Trash Bash, and Trash Attack, before settling on Beach Sweeps.

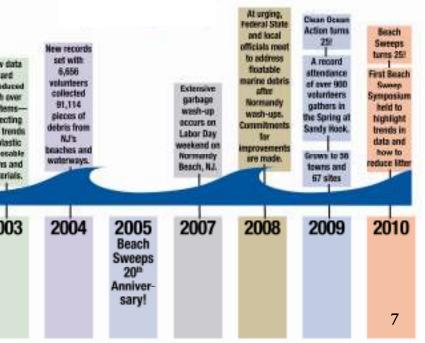
Beach Sweeps Timeline Clean Ocean Action's beach cleanups evolved over its 25-year history, attracting more volunteers, collecting tons of debris, and developing additional programs and resources to educate people and engage them in the solutions to ocean pollution.	Dead and dying disphins wash ashare, massive medical waste and garbage slicks mash- ups, and high sewage levels result in over 800 beach Cassures. President Reagan signs into low the Narine Plastic Pollution Control Act (MPPCA) to ratify Annex V of the International Convention for the Prevention of Pollution for the Prevention of Pollution for the Prevention of Pollution for the Prevention of Pollution for the Prevention of Pollution for Ships (MARPOL) which prohibits the disposal of plastics at 283.	Many more beaches close due to partsage and medical waste wash- ups and sewage. Tourism plunges. The combined economic impact from the 1987-88 wash-ups is S2-4 billion. Plastic Tempon Applicator Ban Act into MJ Legislature to reduce plastics. Beach clean- ups occur in all marine states and the Center for Marine Conservation (how Ocean Conservation (how Ocean Conservation (how Ocean Conservation (how Ocean Conservation) launches national database and program for	Use of the national data card begins	Cigarette Filters added to the data card. US Senator Bill Bradley and students from the Anastasia Schoel in Long Branch theip launch the Storm Drain Stencilion	Becomes bi- annual event & gass statewide. Over 2,000 volunteers participate.	10 towes participate. US Senator Al Gore and actor Christopher Reeves effenti event at Sandy Hoak, and participate in a Round Table discussion with community leaders about acean pathon dumping. "NO BUTTS ABOUT IT- USE YOUR ASHTRAY CAMPAIGN" Saunched. J NU Adopt-A- Beach Act passies mandating the state to consume to Beach	NJ "Joint Legislative Resolution" supports Beach Sweeps 19 Towns participate 0ver 2,000 voluoteers participate in beach cleanups. 1 Atlantic Virgin sponsors the Sweeps, 1" International Corporation sponsors Eovernor and Mrs. Florie, NY Giant Sieve DeOssie, the Guardian Angels, and 6 state elected officials join	First Annual Beach Sweeps Report released. Jantzen swinwear spansons. Uver 3,000 volunteers participate in beach cleasup	A Beach Sweep Hot- line for information is sponsored by Asbury Park Press.	Beach Sweeps expands to rivers, takes, A streams First underwater cleateup organized by Divers Two, Avon, NJ. Shoprite/ Wakeforn joins as	CDA's website is isunched	is compile public to legislation event into the report encourage bans. Today, t statewide towns, 70	ed into an advocate f a. The Beac a legacy o s have bee e recycling he Beach environme sites and	annual repo or pollution ch Sweeps R of information n used to pa programs, Sweeps is N ental event, thousands o de three get	ort and use preventio deports tur- on. Throug ass smokin and suppo ew Jersey' involving f citizens.	d to educat n initiatives n the one d ghout the y g bans, rt plastic b s largest approximat Indeed, Be	te the s and lay ears, ag tely 60 each ildren ildren New da card introdu with ov 100 item reflectu sew tree in pleat dispessed items a
1984 Clean Ocean Action (COA) is formed. 6 1985 First beach cleanup called the "Debris- a-thon."	1987 Now called "Trash Bash."	1988	1989	Stenciling program. 1990 Changed name to "Trash Attack"	1991 Dubbed "Beach Sweeps" evermore	Swreps.	1993	1994	1995	1996	1997	1998 Governor Whitman volunteers	1999	2000 43 towns participate	2001	2002	200



Christopher Reeves and Al Gore join Cindy Zipf at Beach Sweeps in 1992

and their children. At the heart of the program are Beach Captains, volunteers that organize and manage the events at each individual site. Beach Captains direct all Beach Sweeps volunteers, make arrangements for trash/recycling pickup, and advertise in their areas.

From the beginning, the underlying goal of the Beach Sweeps program is to encourage "naturally clean" beaches, rather that just collect people's "pointless" pollution. Through the Beach Sweeps program, Clean Ocean Action strives to educate the public about the severity of the ongoing local marine debris problem. As our historical data indicates, more than 80% of the "junk" that washes-up on our beaches and waterways is plastic, year after year. Many volunteers are unaware of this trend until they participate in a Sweep and as a result are inspired to take further action, such as reducing their use of disposable plastics. Ultimately, if everyone can learn to reduce, reuse, and recycle, as well as dispose of their waste properly, we will be able to move toward a "naturally clean" beach and eliminate the need of the Beach Sweeps program.





Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has. —Margaret Mead

### 25th Anniversary Beach Sweep Honorees:

Carolyn McGuire & John Grossarth Corporate Citizenship Award

Barbara Boyd & The students of Marine Academy of Science & Technology Science Award

> John Wnek Beach Captain Endurance Award (15 Years Plus)

> Dr. Bill Rosenblatt Beach Captain Endurance Award (15 Years Plus)

> > Jenkinson's Aquarium Education Award

> > > Jay Kelly, Ph.D. Research Award

Fran and Peter Donnelly Beach Sweep Family Award

Kari Martin Beach Sweep Family Award

> Jeff Hoffberger Citizen Action Award

> Kathleen Gasienica Citizen Action Award



"I like to make the world a nicer place. The data records let us know how much trash we get and also lets us see the different types of trash we collect. We use this information to find where it is coming from and make changes."—Peter John Donnelly (Union Beach) At age 11, Peter was COA's youngest beach captain!

"Our Beach Sweeps are much more than cleaning up trash and debris. Rather, the Sweeps provide the perfect opportunity and venue to educate the community as to the importance of protecting the ecology of our beautiful harbor, since the harbor literally defines the Cape May lifestyle in terms of recreation, economy and history." —Gretchen Witman (Cape May)

"Beach Sweeps provides a chance for the community to see what happens when they do not dispose of their trash responsibly. It is a great opportunity to provide education on how to recycle, and why it is important to protect our oceans." —Jenna Leeds (Longport)

"The Clean Ocean Action Beach Sweeps are one of the best ways my students can come together and learn that our disposable society has an impact on the marine Environment."—- Jeff Martin (Cape May)

#### Testimonials:

For more quotes, see the Journal of Citizen Action Against Beach Litter on COA's website.

# Dedicated **BEACH CAPTAINS** make Beach Sweeps a success!

Town	Organizations and Captains	Town	Organizations
Essex County		Beachwood	Ellen Casertano, We
Glen Ridge	Patricia Doyle	Brick	Mark and Sue Dulor
Middlesex County	2000	Lakewood	Christina and Miche
Old Bridge Waterfront Park	Valerie Lysenko	Lavallette	Chet Boyers and An
Monmouth County	Valenc Lysenko	Mantoloking	Jeanne and Scott Hu
Aberdeen	Frank Huza	Ocean Gate	Brian DiStefano and
Asbury Park	Leo and Kathleen Gasienica, Kat Sorensen	Point Pleasant	Marianne Grant
•		Point Pleasant Beach	Diana Costanzo, Da
Atlantic Highlands	Greg Pollack	Seaside Heights	Coastal Jersey Parrow
Avon Belmar	Joe Mario and Justin Roach		Gregory, Marine Ac
	Jesse Beutell, Leo and Kathleen Gasienica Amanda Wheeler		Ocean County Colle
Bradley Beach			Wnek, and Pat & B
Brielle	Mary Lou and Rick Bolger	Seaside Park	Krista Barone, Joe H
Deal	Derek Riddle and Surfrider Foundation, Jersey Shore Chapter	Toms River	Mark and Clare Hav
Highlands	Colette DeNardo, Chris Francy, Rebecca Kane, Joe Reynolds, and		Marilyn Schlossbach
	Steve Szulecki	Island Beach State Park	Cheri Deligny
Bayshore Waterfront Park	Joe, Kari and Astri Martin	Atlantic County	Sherr 2 engiry
Keansburg	Ann Commarato and Danielle Ehrhardt	Atlantic City	Jeff Hoffberger, Rut
Keyport	Mike Palmisano	Tituatie Sity	Alexandra Wenholz
Allenhurst	Bill Rosenblatt	Brigantine	Joe Campitelii
Long Branch	Jill McGrath and Tyler Thompson	Egg Harbor Twp	Jennifer Hess
Manasquan	Carole Hart and Rich Miller		Jenna Leeds and Ma
Middletown	Ben Ascone, Kathy Bushman, Ralph and Tara Carloni, Lisa Fuchs,	Longport	Franz Adler and Ma
	Sue Siegwarth, and Carol Spratford	Margate	Caroline DiGiovann
Monmouth Beach	Mary Horoski and Maureen Sczpanski	Forsythe Wildlife Refuge	
Ocean Grove	Ashley Bonefont and Cassie Senkel	Ventnor	Adventure Aquarium
Sandy Hook	Barbara Bennett, Paige Hakim, Kristan Scala and	Cape May County	
	Marine Academy of Science and Technology	Avalon	Andie and Kim Bab
Sea Bright	Eve Critton, Jessica Elicker, Andrew Mencinsky, and Mark Woldseth	Cape May	Mark Allen, Jeff Ma
Sea Girt	South Monmouth Board of Realtors and Tammy Schweir	Del Haven	Damon Noe
Spring Lake	Bill Cleary and East Coast Dive Center	North Wildwood	Travis Dauria
Union Beach	Fran and Peter Donnelley	Ocean City	Krissy Halkes, Alexa
Ocean County		Sea Isle City	Annette Lombardo a
Barnegat	John Durasky	Strathmere	Chuck Endicott and
Bay Head	Dan Keifer	Stone Harbor	Helen Edwards
,	The second se	Wildwood	Kyle Mumford and
		INSERT YOUR AWESOMENESS HERE	Sign-up to Volun

#### ns and Captains

Wendi Higgins, and Jayne Moormann long chelle Palmieri Anita Zalom Hulse nd Mayor Paul Kennedy

Danni Logue, and Diane Predimano rothead Club, Sirena Fredricks, Mary Gibbs, Dana Academy of Technology and Environmental Science, ollege Water Watch, Grace Peck, Kevin Quigley, John Bob Bennekamper Humenik, Bonnie and Julie Peterson, and Ted Jermansen Iaviland, Labrador Lounge, Cara Muscio, and ch

uth Leensera, Stockton College Water Watch. and lz

Margo Pellegrino Max's Mission nni and Sandy Perchetti um, Marc Kind, Anthony Falcone, and PJ Polinski

ıbusik Iartin, and Gretchen Whitman

xandra Marcus, Andrew Oster, and Margo Pellegrino o and Bob Thibault nd Jersey Shore Parrot Head Club

d Jessica Westerland

#### Inteer To Become a Beach Captain!

# Ocean WAVEMAKERS

### Grade Schools

All Saints, Atlantis Prep, Belhaven, Bishop McHugh Regional Catholic, Bolger, Brigatine North, Calvary Academy, Central Jersey Homeschoolers, Central Regional, Eisenhower, Eudgene A Tighe, Forrestdale, Hope Academy, Howell North, Howell South, Indian Hill, Jordan Road, Neeta, Ocean Twp. Intermediate, Point Pleasant Memorial, Ranney, Rumson County Day, Rutgers Prep, St. Rose of Lima, St. Catherine, St. Peters, Stuart Country Day, Wilberforce, Thorne, Toms River Intermediate North, Toms River Intermediate South, Union Avenue, William H. Ross, William R. Satz.

#### **Elementary Schools**

All Saints, Atlantis Prep, Ben Franklin, Bishop McHugh Regional Catholic, Bradley Beach, Brielle, Calvary Academy, Central Jersey Homeschoolers, Chelsea Heights, Deane Porter, Eisenhower, Fairview, Harmony, Highlands, Holy Cross, Holy Family, Hope Academy, Lavallette, Lillian Drive, Middletown Village, Monmouth Beach, Navesink, Nellie F. Bennett, New Monmouth, Nut Swamp, Oak Knoll, Ocean Avenue, Ocean Gate, Ranney, Rumson County Day, Rutgers Prep, Shrewsubry Borough, Sovereign Avenue, Spring Lake Heights, St. Jerome, St. Josephs, Stuart County Day, Sunnymead, Uptown School ,Complex, Washington Street, River Plaza.

#### High Schools

Abington Senior, Allentown, Atlantic City, Biotechnology, Bound Brook, Brick Memorial, Calvary Academy, Cape May County Technical, Carteret, Central Jersey Homeschoolers, Central Regional, Columbia, Communications, Cranford, Delaware Valley Charter, Edison, Egg Harbor Township, Elizabeth, Freehold Regional , Glen Ridge, Governor Livingston, Henry Hudson Regional, High Tech, Highstown, Hillsborough, Holmdel, Hope Academy, Hunterdown Central, John. P. Stevens, Keansburg, Keyport, Lacey Township, Long Branch, Lower Cape May Regional , Lower Merion, Mainline, Regional, Manalapan, Manasquan, Marine Academy of Science and Technology, Matawan Regional, Mater Dei, Marine Academy of Technology and Environmental Science, Middletown North, Middletown South, Monsignor Donovan, Motivation, Newark Vo-Tech, North Plainfield, Oakcrest, Ocean Township, Old Bridge, Palisades Park, Paramus Catholic, Point Pleasant Beach, Ranney, Raritan, Red Bank Regional, Red Bank Catholic, Rumson Fair Haven Regional, Rutgers Prep, Shore Regional, Somerset County Vocational and Technical Schools, South Brunswick, St. Rose Catholic, St. Huberts Catholic High School for Girls, St. Josephs, Steinart, Toms River North, Upper Darby, Wall, West Windsor, Plainsboro, Wildwood.

#### Colleges & Universities

Atlantic Cape Community College, Brookdale Community College, Centenary College, Cornell University, Georgian Court University, Kean University, Middlesex County College, Monmouth University, Montclair College, New Jersey Institute of Technology, Ocean County College, Ramapo College, Raritan Valley Community College, Rider University, Rutgers University, Stockton College, Syracuse University, United States Military Academy.

#### **Businesses & Organizations**

First Bank of Sea Isle City, Home Inspections, Adventure Aquarium, Atlantic City Electric, Aveda, Bank of New York, Bank of America, Bayshore Recycling, Becton Dickinson, Below the Bridge Skate Park, BNY Mellon, Bruck-Mellon, Carrabbas Italian Restaurant, Central Jersey United Way, Colgate Palmolive, Comcast, Defined Logic, Gloria Nilson Realtors, Goosie LLC, Greenstar Environmental Solutions LLC, Hewlett Packard, Kohls, Labrador Lounge, Langosta Lounge, Mary Kay McMillin EEC, Merrill Lynch, Mister Natural Landscaping, NJ American Water, NJ Natural Gas, NJ Superior Court, Oakhurst Veterinary Hospital, Ocean City Aquatics & Fitness Center, Pershing, Ray Catena Motor Corporation, Ricoh, Rutgers Cooperative Extension, Sitting 4 Paws, Starbucks, Sterling Healthcare, Timberland, United Teletech Financial Federal Credit Union, Vista Shores Homes Association, Wakefern Food Corp.

#### Cub Scout Packs

Packs 12, 29, 32, 34, 59, 66, 76, 77, 82, 126, 137, 142, 175, 194, 205, 209, 241, 242, 258, 389, 637

#### Boy Scout Troops

Troops 12, 22, 36, 47, 50, 68, 76, 77, 92, 97, 131, 155, 177, 204, 275, 333, 515, 634

#### **Brownies**

Troops 218, 1065, 1104, 6561, 11325, 15527

#### D Tro

#### Girl Scout Troops

Troops 29, 71, 163, 228, 242, 384, 513, 577, 616, 617, 662, 753, 848, 1104, 1183, 1242, 1248, 1303, 1368, 1404, 1598, 1705, 1810, 1865, 2234, 11013, 12022, 13065, 13935, 13998, 15663, 16116, 42165, 43006, 60561, 61278, 80581

#### Civic Groups

4-H Eco Maniacs, Absegami Interact Club, Atlantic Highlands Emergency Service, Beers Street Community Club, Bayshore Regional Watershed Council, ARC of Atlantic County, Brigantine Beach Volleyball Association, Brigantine Knights of Columbus, Brigantine Senior Citizens Club, buildOn, Caring Kids, Central Jersey Ski Club, COA Student Ocean Advocates, Coastal Jersey Parrothead Club, Cornell Club of Monmouth/Ocean, Country Critter 4-H Club, Dancers Workshop, East Coast Diving, Fresh Start, Friends of Forsythe, Friends of Pews Creek, Greater Philadelphia Boston Terrier Group, Green Party of Monmouth County, Humane Society of Ocean City, I.L. Perez Teen Group, Ideal Beach Association, Jersey Shore Parrot Head Club, Leisure Village West Nature Club, Leo Club, Lit Chicks, Manasquan Beach Improvement Association, Meetup.com-Road Not Taken Hiking and Adventuring, Midway Beach Condo Association, Monmouth County Association of Realtors, Monmouth County Nursing, Navesink Swimming River Watershed Group, NJ Beach Buggy Association, NJ Environmental Federation, Noah's Ark Pet Pals 4-H Club, Notre Dame Club of Jersey Shore, Ocean City Beach Buggy Association, Ocean City Gardens Civic Association, Ocean County Board of Realtors, Ocean Pointe Realtors, Ortley Beach Committee, Peacemakers, Point Pleasant Beach Key Club, Pomona Gunning Club, Rainbown Girls International, Reality Owners Association, Stone Harbor, Registered Republican Club of Lavallette, Rumson Garden Club, Save Barnegat Bay, Seabrook Village, Seacoast Dancers, Seaweeders Garden Club, Shore Riptide Hockey Team, Sierra Club, Silver Bay, Toms River, Somerset County Interact-Rotary Club, South Monmouth Board of Realtors, Sportsman Service League, Spring Lake Women's Club, Surfirder (Jersey Shore Chapter), Surfrider (South Jersey Chapter), Team Survivor Tri State, The GoodWorx Foundation, The Nature Center of Cape May, The Nature Conservancy, Tonya Keller Recreation Center, Tri State Parrothead Club, Walkers Club of Lavallette, Women's Club of Spring Lake.

#### Government Agencies & Environmental Commissions

Army National Guard, Ameri-Corps NJ Watershed Ambassador Program, Aberdeen EC, Atlantic Highlands EC, Beachwood EC, Borough of Glen Ridge Administration, Bradley Beach EC, Cape Atlantic Marine Corps League, Coast Guard Auxillary Flotilla 82, Coast Guard Recruit Company D 183, Highlands EC, Keyport EC, Keyport Town Council, Lavallette EC, Manasquan EC, Middletown EC, Ocean City EC, Ocean County Woman's Commission, Sea Isle City EC, Seaside Park Borough Council & Administration, Spring Lake EC, Tinton Falls Town Council, Town of Mantoloking, United Parcel Service WLD, Forsythe Wildlife Refuge, Keyport Police Explorers Troop 267.

#### Faith Based Groups

All Saints (Oceanville), Westwood UM Church, Good Sheppard Lutheran, Holy Trinity Lutheran Church, King of Kings Lutheran Church, Rahway/Plainfield Quakers, Rumson Presbyterian Church, Searchlight Church, St. Annes Youth Group, St. Benedict Church (Holmdel), St. Catherines Church Youth Group, St. James Church, St. Lukes RC Church, St. Marks Church, St. Michaels Youth Group, The King Parish Church, Unitarian Universalist Congregation of Monmouth County, Waterspirit.

#### <u>Daisies</u>

Troops 834, 1351



# Beach Sweeps 2010 Data Results

	Spring Total	Fall Total	2010 To- tals	Percentage of Total
Food, Candy Wrappers/Bags	24339	18774	43113*	9.1%
Store/Shopping Bags	5189	3430	8619*	1.8%
Trash Bags	2258	1344	3602*	0.8%
Other Bags	3128	1944	5072	1.1%
Beverages/Soda Bottles	11870	6342	18212	3.8%
Bleach/Cleaner Bottles	469	186	655	0.1%
Milk/Water/Gallon Jugs	1233	707	1940	0.4%
Motor Oil/Lotion Bottles	364	149	513	0.1%
Tan Oil/Lotion Bottle	373	228	601	0.1%
Other Bottles	1457	834	2291	0.5%
Buckets/Crates/Bins	428	129	557	0.1%
Cap/Lids	30534	31361	61895*	13.0%
Cap/Rings	3854	2384	6238	1.3%
Cigarette Filters	17731	28172	45903*	9.7%
Cigarette Lighters	1007	963	1970*	0.4%
Cigarette Packaging	1438	1459	2897	0.6%
Cigar Tips	5216	5112	10328*	2.2%
Cups	3723	2436	6159*	1.3%
Diapers	72	90	162	0.0%
Fishing Bait Bags/Containers	374	300	674	0.1%
Fishing Line	647	658	1305	0.3%
Fishing Lures, Floats	370	227	597	0.1%
Fishing Nets - Small	146	83	229	0.0%
Fishing Nets - Large	51	30	81	0.0%
Fork, Knives, Spoons	4200	2951	7151*	1.5%
Light Sticks	1838	337	2175*	0.5%
Plastic Pieces	29714	21565	51279*	10.8%
Ribbon/Tape (no balloon)	1437	770	2207*	0.5%
Rope - short	1386	672	2058	0.4%
Rope - Long	336	136	472*	0.1%
6-Pack Holders	334	187	521	0.1%
Sheeting Tarps	160	103	263	0.1%
Shotgun Shells	1072	601	1673	0.4%
Strapping Bands	932	793	1725*	0.4%
Straws/Stirrers	19759	19270	39029*	8.2%
Syringes	183	164	347	0.1%
Tampon Applicators	3381	2551	5932*	1.2%
Toys	1472	1416	2888*	0.6%
Vegtable Mesh Sacks	102	88	190*	0.0%
Other Plastics (specify)	3581	3469	7050	1.5%
Building Materials (specify)	808	387	1195*	0.3%
Buoys/Floats	554	261	815*	0.2%
Cups	3562	1899	5461*	1.1%
Egg Cartons	84	36	120	0.0%
Fast Food Containers	720	561	1281*	0.3%
Meat Trays	242	121	363	0.2%
Packaging Materials	2226	1328	3554	0.7%
Pieces	14360	7739	22099*	4.6%
Plates	472	396	868*	0.2%
Other Foam Plastic (specify)	2446	1990	4436*	0.9%

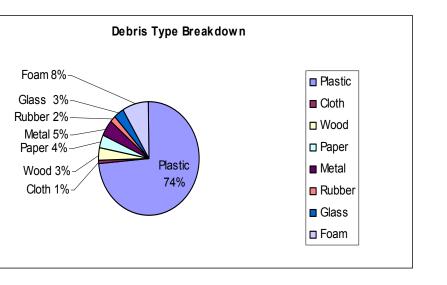
	Beverage Bottles	3904	2165	6069	1.3%
	Food Jars	211	78	289	0.1%
	Other Bottles/Jars	365	136	501	0.1%
	Lights: Bulbs	125	73	198	0.0%
	Lights: Fluorescent Tubes	6	15	21	0.0%
ISS	Pieces	4831	2892	7723*	1.6%
Glass	Tile/Ceramic Pieces	296	209	505	0.1%
	Other Glass (specify)	221	194	415	0.1%
	Balloons - Mylar	463	405	868	0.2%
		270			
	With String/Ribbon	270	177	447	0.1%
	Balloons - Rubber	523	539	1062	0.2%
<u>ц</u>	With String/Ribbon	280	225	505	0.1%
Rubber	Condoms	255	230	485	0.1%
Rul	Gloves	397	344	741*	0.2%
	Tires: Part	233	109	342*	0.1%
,	Tires: Whole	54	30	84	0.0%
	Other Rubber: Specify	822	3293	4115*	0.9%
	Appliances: Specify	57	11	68	0.0%
	Batteries: Car	40	12	52	0.0%
	Batteries: Other	257	55	312	0.1%
	Bottles Caps	3353	2947	6300	1.3%
	Aerosol Cans	1240	130	1370*	0.3%
	Beverages Cans	4073	3385	7458*	1.6%
	Food Cans	163	112	275	0.1%
	Other Cans	153	100	253	0.1%
	Car Parts	118	60	178	0.0%
	Crab/Fish Traps	25	24	49	0.0%
Metal	55 Gallon Drums: Old	32	0	32*	0.0%
Ň	55 Gallon Drums: New	3	13	16	0.0%
	Fishing: Hooks	81	41	122	0.0%
	Fishing: Sinkers	27	30	57	0.0%
	Foil	707	657	1364	0.3%
	Nails	456	945	1401	0.3%
	Pieces	519	656	1175*	0.2%
	Pull/Pop Tabs	298	171	469	0.1%
	Wire	556	360	916*	0.2%
	Other Metal: Specify	439	453	892*	0.2%
	Paper Bags	707	703	1410*	0.3%
	Cardboard	855	575	1430	0.3%
	Cartons/Boxes	370	274	644	0.1%
	Cups	1343	964	2307	0.1%
ы	Newspaper/Magazines	1054	964 693	1747	0.5%
Paper		4413	4198	8611*	1.8%
Ч	Pieces				
	Plates	476	303	779*	0.2%
	Other Paper: Specify	854	984	1838	0.4%
	Crab/Lobster Traps	41	60	101*	0.0%
	Crates/Baskets	62	17	79*	0.0%
	Ice Cream Spoon/Sticks	424	733	1157	0.2%
Weed	Lumber Pieces	6346	4038	10384*	2.2%
≥	Pallets	146	89	235*	0.0%
	Other Wood: Specify	2936	1086	4022*	0.8%
	Blankets/Sheets/Towels	235	209	444*	0.1%
	Clothing: Specify	589	440	1029*	0.2%
yth	Shoes/Sandals	543	475	1018*	0.2%
Cloth				1559*	0.3%
ວ	String (No Balloon)	854	705	1004	0/16-11



ltem Collect	

\* Denotes record amount.

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	Spring	Fall	Total
ltems Collected	260,268	215,053	475,321*
Participants	4,883	3,489	8,372*
ltems Collected Per Person	53	62	57

### Roster of the Ridiculous

...almost everything including the kitchen sink

Ten-Gallon Gas Tank Razor Scooter Jewelry Box Fire Extinguisher Tube Television Set Bed Springs Area Rug Car Grill Christmas Decorations Televisions (4) Brooms and Dustpan Plastic Fingernails Toilet Seat Lid Plastic Easter Eggs Stuffed Panda Bear Lottery Ticket Pickup Truck Bed Cap Car Seat Mailbox **Bed Springs** Home Depot Apron Toothbrush Human Shaped Candles Ballet Slipper

Surfboards (2) Hockey Pucks Baseball Bat and Balls Boomerang Golf Ball Mouthguards(3) Basketball

Unopened Census Form Antique Sewing Machine Coin Sorting Machine Couch Cushion Area Rug Toys R Us Shopping Cart Kitchen Sink Drug Bag Money (\$1, \$5 bills) Japanese War Figure Undergarments (5) MP3 Player Toothbrush Cell Phone Handheld Electric Pump Can of Corned Beef Coin Sorting Machine Ice Machine DVD's Plastic Cow Toilet Seat Lid Cell Phone Test Tube Easter Egg (with \$3 in it)

Wallet Paint Brushes Children's Pool Kitchen Cart Keg Pant legs Mattress House Siding Industrial Drum Hair Dye Showerhead Headphones Bottle of Syrup Light Switch Plate Tires Car Bumper Debit Cards Rental Car Keys Dust Pan Door Frame Smoke Alarm Pacifiers (3) Whistle Camera

#### Awash in Sports

Lacrosse Balls (2) Inhaler Duck Caller Baseball Fishing Rods Hula Hoop Football

Whistle Bike Seat Tennis Ball Bike Reflector **Ping Pong Ball** Wiffleball Bat Leather Golf Club Grip

# Dirty Dozen

# Top Twelve Marine Debris Items

2010 Rank	Debris Item	Total Items	% of Total	2009 Rank	2008 Rank	2007 Rank
1	Plastic Caps/Lids	61,895	13	1	2	2
2	Plastic Pieces	51,249	11	3	4	1
3	Cigarette Filters	45,903	10	2	1	4
4	Food Wrappers/Bags	43,113	9	5	3	5
5	Straws/Stirrers	39,029	8	4	5	3
6	Foam Pieces	22,099	5	6	6	6
7	Beverage/Soda Bottles	18,212	4	7	7	7
8	Lumbar Pieces	10,384	2	10	*	12
9	Cigar Tips	10,328	2	12	8	*
10	Shopping Bags	8,619	2	11	10	*
11	Paper Pieces	8,611	2	*	9	*
12	Glass Pieces	7,723	2	*	8	8
	Dirty Dozen Total Debris Items	327,195	69%			

\* Indicates item did not rank in top 12 in previous year.



# 25th Anniversary Symposium

To celebrate 25 years of Beach Sweeps, Clean Ocean Action (COA) hosted the first "Beach Sweep Symposium Against Beach Litter" at Brookdale Community College. Over 100 participants attended to celebrate and learn about 25 years of Beach Sweep data. The symposium highlighted a generation of Beach Sweeps, citizen action, steps needed for naturally clean beaches, and newly released information about plastic pollution in the North Atlantic. Most importantly, the Symposium celebrated a generation of citizen action against litter. The Symposium's keynote address was given by U.S. Representative Frank Pallone who spoke about how clean beaches and waterways are essential for our economy, health, and our environment. Symposium speakers included:

- NJ State Senator Sean Kean (R-11)
- NJ State Senator Barbara Buono (D-18)
- Kari Martin, Long-time COA Beach Sweep Coordinator
- Tavia Danch, Pollution Prevention Coordinator, COA Scientists
- Heather Saffert, Ph.D., and Jenni Samson, Ph.D., COA Scientists
- Giora Proskurowski, Ph.D., Oceanography Faculty Scientist, Sea Education Association (SEA)
- Skye Moret-Ferguson, SEA Senior Assistant Scientist
- John Weber, East Coast Regional Manager, Surfrider Foundation
- Anita Zalom, Dedicated Beach Captain
- Kathleen Gasienica, NJ Marine Sciences Consortium
- Barbara Boyd, Kristan Scala, Jenna Regal, Marine Academy of Science and Technology
- Steve Mullen, Surfrider Foundation, South Jersey Chapter
- Ralph Coscia, President, Citizens Right to Access Beaches
- Gary Conover, Atlantic County Utilities Authority

#### Show Us The Data! Trends in Beach Sweeps Data (1993-2009)

Collecting data is tedious work; however it is essential to the success of the Beach Sweeps. It turns a few volunteer hours into a legacy of information that Clean Ocean Action and others use to promote programs to reduce litter. Challenging as it may be – data collection is the evidence of action. It is evidence of the hard work of dedicated volunteers and provides the proof needed to reduce litter.

In celebration of the Beach Sweeps 25<sup>th</sup> Anniversary, Clean Ocean Action scientists reviewed 15 years (1993-2009) of data to search for trends in beach litter. What did we find? The results are contained in the **Journal of Citizen Action Against Beach Sweeps**, which can be found on our website.

Here are a few highlights found in the data analysis:

- The amount of plastic pieces collected has relatively increased from 71% in 1993 to 80% in 2009. Rubber and cloth items also increased. In contrast, the relative percentages of glass and paper both declined.
- As the number of volunteers and clean up sites increased over the years, so did the amount of debris collected.
- The number of plastic bags collected more than quadrupled from 2,793 in 1993 to 12,873 in 2009.
- Plastic caps and lids also soared from 6,947 in 1993 to 33,551 in 2009.
- Plastic rings jumped from 41 in 2002 (when they were first added to the data card) to 8,215 in 2009.

Please visit www.cleanoceanaction.org to view the full report.





